Grigorii Mikitik

List of Publications by Year
in descending order

99	2,187	279798	233421
papers	citations	23 h-index	45 g-index

101	101	101	1901
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Manifestation of Berry's Phase in Metal Physics. Physical Review Letters, 1999, 82, 2147-2150.	7.8	391
2	Peak effect, vortex-lattice melting line, and order-disorder transition in conventional and high-Tcsuperconductors. Physical Review B, 2001, 64, .	3.2	150
3	Imaging of super-fast dynamics and flow instabilities of superconducting vortices. Nature Communications, 2017, 8, 85.	12.8	149
4	Why an ac Magnetic Field Shifts the Irreversibility Line in Type-II Superconductors. Physical Review Letters, 2002, 89, 027002.	7.8	101
5	Generation of a dc voltage by an ac magnetic field in type-II superconductors. Physical Review B, 2001, 64, .	3.2	97
6	Band-contact lines in the electron energy spectrum of graphite. Physical Review B, 2006, 73, .	3.2	80
7	Critical state in thin anisotropic superconductors of arbitrary shape. Physical Review B, 2000, 62, 6800-6811.	3.2	77
8	Theory of the longitudinal vortex-shaking effect in superconducting strips. Physical Review B, 2003, 67, .	3.2	66
9	Electron energy spectrum and the Berry phase in a graphite bilayer. Physical Review B, 2008, 77, .	3.2	54
10	Meissner-London Currents in Superconductors with Rectangular Cross Section. Physical Review Letters, 2000, 85, 4164-4167.	7.8	51
11	Analytical Methods and Formulas for Modeling High Temperature Superconductors. IEEE Transactions on Applied Superconductivity, 2013, 23, 8001920-8001920.	1.7	51
12	Effect of pinning on the vortex-lattice melting line in type-II superconductors. Physical Review B, 2003, 68, .	3.2	50
13	Vortex shaking in rectangular superconducting platelets. Physical Review B, 2004, 69, .	3.2	40
14	The Berry phase in graphene and graphite multilayers. Low Temperature Physics, 2008, 34, 794-800.	0.6	38
15	Berry phase and the phase of the Shubnikovâ€“de Haas oscillations in three-dimensional topological insulators. Physical Review B, 2012, 85, .	3.2	37
16	Shaking of the critical state by a small transverse ac field can cause rapid relaxation in superconductors. Superconductor Science and Technology, 2004, 17, S1-S5.	3.5	36
17	Berry Phase and de Haasâ€“van Alphen Effect inLaRhIn5. Physical Review Letters, 2004, 93, 106403.	7.8	34
18	Semiclassical energy levels of electrons in metals with band degeneracy lines. Journal of Experimental and Theoretical Physics, 1998, 87, 747-755.	0.9	31

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19	Superconducting strip in an oblique magnetic field. Physical Review B, 2004, 70, .	3.2	29
20	Magnetic susceptibility of topological nodal semimetals. Physical Review B, 2016, 94, .	3.2	28
21	Analytic solution for the critical state in superconducting elliptic films. Physical Review B, 1999, 60, 592-600.	3.2	26
22	Critical state in type-II superconductors of arbitrary shape. Physical Review B, 2005, 71, .	3.2	26
23	Unusual critical states in type-II superconductors. Physical Review B, 2007, 76, .	3.2	26
24	Exact solution for the critical state in thin superconductor strips with field-dependent or anisotropic pinning. Physical Review B, 2000, 62, 6812-6819.	3.2	23
25	Origin of the peaks in the Nernst coefficient of bismuth in strong magnetic fields. Physical Review B, 2009, 79, .	3.2	22
26	Dirac points of electron energy spectrum, band-contact lines, and electron topological transitions of312kind in three-dimensional metals. Physical Review B, 2014, 90, .	3.2	21
27	Anisotropic superconducting strip in an oblique magnetic field. Physical Review B, 2005, 72, .	3.2	20
28	The phase of the de Haasâ€“van Alphen oscillations, the Berry phase, and band-contact lines in metals. Low Temperature Physics, 2007, 33, 439-442.	0.6	20
29	Order-disorder transition and melting line in conventional and high-Tcsuperconductors. Superconductor Science and Technology, 2001, 14, 651-654.	3.5	18
30	Flux-line pinning by point defects in anisotropic biaxial type-II superconductors. Physical Review B, 2009, 79, .	3.2	18
31	gfactor of conduction electrons in the de Haasâ€“van Alphen effect. Physical Review B, 2002, 65, .	3.2	16
32	Field, temperature, and concentration dependences of the magnetic susceptibility of bismuthâ€“antimony alloys. Low Temperature Physics, 2000, 26, 39-46.	0.6	15
33	Two regimes of vortex penetration into platelet-shaped type-II superconductors. Journal of Experimental and Theoretical Physics, 2013, 117, 439-448.	0.9	15
34	Comment on â€œSuperheating and Supercooling of Vortex Matter in a Nb Single Crystal: Direct Evidence for a Phase Transition at the Peak Effect from Neutron Diffractionâ€• Physical Review Letters, 2002, 89, 259701; author reply 259702.	7.8	14
35	Evidence of anisotropic vortex pinning by intrinsic and irradiation-induced defects in Ba(Fe,Co)₂As₂studied by quantitative magneto-optical imaging. Superconductor Science and Technology, 2014, 27, 044014.	3.5	14
36	Magnetic relaxation in a superconducting disk. Physical Review B, 1996, 54, 6576-6582.	3.2	13

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37	Critical states in thin planar type-II superconductors in a perpendicular or inclined magnetic field (Review). Low Temperature Physics, 2010, 36, 13-38.	0.6	13
38	Magnetization of topological line-node semimetals. Physical Review B, 2018, 97, .	3.2	13
39	Determination of critical current density and effective depth of flux-pinning wells in anisotropic platelet-shaped superconductors. Physical Review B, 1998, 58, 14207-14210.	3.2	12
40	Magnetic Susceptibility of Topological Semimetals. Journal of Low Temperature Physics, 2019, 197, 272-309.	1.4	12
41	Vortex shaking in superconducting platelets in an inclined magnetic field. Superconductor Science and Technology, 2007, 20, S111-S116.	3.5	11
42	Calculation of conduction electrongfactor in metals: Comparison of electron-spin dynamics and localg-factor approaches. Physical Review B, 2003, 67, .	3.2	10
43	Vortex-Shaking Effect in Thin Flat Superconductors. Journal of Low Temperature Physics, 2005, 139, 221-227.	1.4	10
44	Oscillations of the Nernst coefficient in bismuth. Physical Review B, 2011, 83, .	3.2	9
45	Spontaneous symmetry breaking of magnetostriction in metals with multivalley band structure. Physical Review B, 2015, 91, .	3.2	9
46	Anomalous diamagnetism in the intermetallic compounds CaPb3 and YbPb3. Low Temperature Physics, 2003, 29, 356-358.	0.6	8
47	Magnetic relaxation in partly penetrated critical states of type-II superconductors. Physical Review B, 2003, 68, .	3.2	8
48	Influence of spatial variations in the lower critical field on the equilibrium field penetration into superconductors. Physical Review B, 2008, 77, .	3.2	8
49	Suppression of geometrical barrier in Bi2Sr2CaCu2O8+Î´crystals by Josephson vortex stacks. Physical Review B, 2011, 83, .	3.2	8
50	Electron topological transitions of 3Â½ kind in beryllium. Low Temperature Physics, 2015, 41, 996-1000.	0.6	8
51	Asymmetry of magnetic-field profiles in superconducting strips. Physical Review B, 2005, 72, .	3.2	7
52	Critical state in type-II superconductors with order-disorder transition. Physical Review B, 2006, 74, .	3.2	7
53	Long-term magnetic relaxation in high-Tcsuperconductors. Physical Review B, 1993, 48, 1303-1305.	3.2	6
54	Magnetic relaxation in a superconducting plate with rotating flux lines. Physical Review B, 2002, 66, .	3.2	6

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55	Transport properties of vortex matter governed by the edge inductance in superconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Bi</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2009, 80, .	3.2	6
56	Nanomechanics of an individual vortex in an anisotropic type-II superconductor. Physical Review B, 2009, 80, .	3.2	6
57	Critical current in type-II superconductors near the order-disorder transition. Physical Review B, 2010, 81, .	3.2	6
58	Upper critical field and melting line of the flux-line lattice in clean high-Tc superconductors near Tc. Physica C: Superconductivity and Its Applications, 1995, 245, 287-294.	1.2	5
59	On the nature of the fishtail effect in the magnetic hysteresis loop of high-T c superconductors. JETP Letters, 1996, 64, 586-591.	1.4	5
60	Fishtail effect and magnetic relaxation in anisotropic flat superconductors. Physica C: Superconductivity and Its Applications, 2000, 332, 398-401.	1.2	5
61	Reversible Magnetic Behavior of Superconductors Forced by a Small Transverse AC Magnetic Field. Journal of Low Temperature Physics, 2003, 131, 1033-1042.	1.4	5
62	Transverse and longitudinal vortex shaking and magnetic relaxation in superconductors. Physica C: Superconductivity and Its Applications, 2004, 404, 69-73.	1.2	5
63	Flux penetration into superconductingNb3Snin oblique magnetic fields. Physical Review B, 2006, 73, .	3.2	5
64	Crossing points of nodal lines in topological semimetals and the Fermi surface of ZrSiS. Physical Review B, 2020, 101, .	3.2	5
65	Critical current in thin flat superconductors with Bean-Livingston and geometrical barriers. Physical Review B, 2021, 104, .	3.2	5
66	Step-like anomaly of the magnetic susceptibility in crystals with degenerate electronic energy bands. Low Temperature Physics, 2007, 33, 839-842.	0.6	4
67	Deforming and moving a vortex by the tip of a magnetic force microscope. Physica C: Superconductivity and Its Applications, 2010, 470, 782-785.	1.2	4
68	Determination of anisotropic pinning force by measuring critical current density in an inclined magnetic field. Physical Review B, 2011, 83, .	3.2	4
69	Electron Topological Transitions of $$3rac{1}{2}$$ 3 1 2 Kind in Metals. Journal of Low Temperature Physics, 2016, 185, 686-691.	1.4	4
70	Analysis of Dirac and Weyl points in topological semimetals via oscillation effects. Low Temperature Physics, 2021, 47, 312-317.	0.6	4
71	Electrical breakdown of conductors. Fusion stage. Journal of Applied Mechanics and Technical Physics, 1980, 20, 542-546.	0.5	3
72	Thermal melting and orderâ€“disorder transition in high-Tc superconductors. Physica C: Superconductivity and Its Applications, 2003, 388-389, 645-646.	1.2	3

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73	Pinning in nomagnetic borocarbides. Low Temperature Physics, 2005, 31, 1043-1047.	0.6	3
74	Magnetic field profiles of a superconducting strip in an oblique magnetic field. Physica C: Superconductivity and Its Applications, 2006, 437-438, 204-207.	1.2	3
75	Self field of ac current reveals voltage-current law in type-II superconductors. Physical Review B, 2006, 74, .	3.2	3
76	Lamellar Solid-Liquid Mesophase Nucleated by Josephson Vortices at the Melting of the Vortex Lattice inBi2Sr2CaCu2O8+Î´Superconductor. Physical Review Letters, 2011, 107, 247001.	7.8	3
77	Oscillations of magnetization in topological line-node semimetals. Low Temperature Physics, 2018, 44, 567-572.	0.6	3
78	Detection of relativistic fermions in Weyl semimetal TaAs by magnetostriction measurements. Nature Communications, 2022, 13, .	12.8	3
79	Magnetic relaxation in an anisotropic superconducting strip. Physical Review B, 2004, 70, .	3.2	2
80	Vortex shaking and magnetic relaxation in superconductors. Physica C: Superconductivity and Its Applications, 2004, 408-410, 514-515.	1.2	2
81	Hâ€“T phase diagram of the vortex lattice in superconductors with pinning. Physica C: Superconductivity and Its Applications, 2004, 404, 61-68.	1.2	2
82	The electron g factor for one-band and two-band extended models of the electron energy spectrum. Low Temperature Physics, 2004, 30, 973-979.	0.6	2
83	Longitudinal magnetic field increases critical current in superconducting strip. Journal of Physics: Conference Series, 2009, 150, 052024.	0.4	2
84	Nanomechanics of an individual vortex in a type-II superconductor. Physica C: Superconductivity and Its Applications, 2010, 470, S894-S895.	1.2	2
85	Specific features of magnetostriction at electron topological transitions in metals. Low Temperature Physics, 2017, 43, 168-172.	0.6	2
86	Magnetic susceptibility of crystals with crossing of their band-contact lines. Low Temperature Physics, 2021, 47, 605-610.	0.6	2
87	Determination of the B-Dependent Critical Current Density in Thin Flat Superconductors by Magneto-Optics. AIP Conference Proceedings, 2006, , .	0.4	1
88	Superconducting strip with ac current. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1251-1252.	1.2	1
89	Flux-line pinning by point defects in anisotropic type-II superconductors. Physica C: Superconductivity and Its Applications, 2010, 470, S892-S893.	1.2	1
90	Nodal-line driven anomalous susceptibility in ZrSiS. Physical Review B, 2022, 105, .	3.2	1

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91	â€œFishtailâ€•in a magnetic hysteresis loop of an anisotropic superconducting disk. European Physical Journal D, 1996, 46, 1809-1810.	0.4	0
92	Semiclassical quantization condition for magnetic energy levels of electrons in metals with band-contact lines. Low Temperature Physics, 1999, 25, 126-129.	0.6	0
93	Critical state in superconductor thin plates with elliptic shape. Physica B: Condensed Matter, 2000, 284-288, 745-746.	2.7	0
94	Magnetic relaxation in superconductors with rotating flux lines. Physica B: Condensed Matter, 2003, 329-333, 1475-1476.	2.7	0
95	Melting line of the vortex lattice in superconductors with pinning. Physica C: Superconductivity and Its Applications, 2004, 408-410, 487-488.	1.2	0
96	Vortex-shaking effect in thin flat superconductors. Journal of Low Temperature Physics, 2005, 139, 221-227.	1.4	0
97	Critical State in Type-II Superconductors of Complex Shape. AIP Conference Proceedings, 2006, , .	0.4	0
98	Effect of vortex pinning by point defects on the lower critical field in layered superconductors. Journal of Experimental and Theoretical Physics, 2014, 119, 493-502.	0.9	0
99	Phase of quantum oscillation in Weyl semimetals. Low Temperature Physics, 2022, 48, 459-462.	0.6	0